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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,683	03/30/2001	Heider Lilia	MERCK 2219	4205

23599 7590 05/29/2003

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EXAMINER

RUTHKOSKY, MARK

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 05/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/821,683

Applicant(s)

LILIA ET AL.

Examiner

Mark Ruthkosky

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/30/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1-6, and 8-12 stand rejected under 35 U.S.C. 102(e) as being anticipated by Kawakami et al. (US 6,432,585.)

The instant claims are to a positive electrode material comprising an active coated metal core of Sb, Bi, Cd, In, Pb, Ga, Sn, or an alloy thereof. In a preferred embodiment, the metal or alloy is of tin. The metal core coating is of a hydroxide or oxyhydroxide, which has been converted to oxide.

Kawakami et al. (US 6,432,585) teaches an electrode including a coated metal core of tin or an alloy. The tin core is coated with a layer of tin oxide (see col. 19, line 50 to col. 20, line 45.) The material has an average particle size of 0.5 to 60  $\mu\text{m}$  (see the claims.) The tin grain host material may include one or more materials. The material may be further coated with one or more layers of oxides of Sn, In, Zn or Ni. (See claim 45, for example.) The materials are used in an electrochemical cell, (throughout.) The material may be used in a battery as a positive or negative electrode depending on the state of charge of the battery.

Art Unit: 1745

The reference does not teach the material to be an oxide converted from hydroxide or oxyhydroxide; however, as the product is an oxide, the claims are anticipated.

3. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Kawakami et al. (US 6,432,585.)

The instant claim is to a positive electrode material comprising an active coated metal core of Sb, Bi, Cd, In, Pb, Ga, or an alloy thereof. The metal core coating is a hydroxide or oxyhydroxide, which has been converted to an oxide.

Kawakami et al. (US 6,432,585) teaches an electrode including a coated metal core of tin or an alloy. The tin core is coated with a layer of tin oxide (see col. 19, line 50 to col. 20, line 45.) The material has an average particle size of 0.5 to 60  $\mu\text{m}$  (see the claims.) The tin grain host material may include one or more materials. The material may be further coated with one or more layers of oxides of Sn, In, Zn or Ni. (See claim 45, for example.) Alloys including Sb, Bi, Pb, Ni, Cu, Ag and Zn are noted as core materials (col. 16, lines 1-15.) The materials are used in an electrochemical cell, (throughout.) The material may be used in a battery as a positive or negative electrode depending on the state of charge of the battery.

The reference does not teach the material to be an oxide converted from hydroxide or oxyhydroxide; however, as the product is an oxide the claims are anticipated.

#### ***Allowable Subject Matter***

4. Claims 7, 13, 14, 15, and 16 are allowed.

5. The following is a statement of reasons for the allowance: The allowed claims are no a process for the production of a positive active electrode material comprising a coated metal core

Art Unit: 1745

of various metals including Sb, Bi, Cd, In, Pb, Ga, Sn, or an alloy as claimed, wherein the process includes preparing a suspension or sol of the metal or metal alloy in utropin; emulsifying the suspension with a hydrocarbon as claimed; precipitating the emulsion onto a metal or metal alloy core and converting the metal hydroxide or oxyhydroxide into a corresponding oxide by heating. The prior art references do not teach the process for the production of electrodes as provided wherein the process includes preparing a suspension or sol of the metal or metal alloy in utropin. Further, the references do not teach the combination of the negative electrode materials of claims 14-16 with a positive active electrode material comprising a coated metal core of various metals including Sb, Bi, Cd, In, Pb, Ga, Sn, or an alloy, as claimed. Thus, these claims are allowable over the prior art.

### ***Response to Arguments***

6. Applicant's arguments filed 3/20/2003 have been fully considered but they are not persuasive.

The applicant argues that the examiner has failed to establish that the tin particles in the electrode of the reference "correspond to or act in the same manner" as the active metal cores of the instant invention. As the reference anticipates the claims, there is no requirement for the tin particles in the electrode of the reference "correspond to or act in the same manner" as the active metal cores of the instant invention. As the materials are the same, the claims are anticipated. It is noted that the tin metal or alloy particles in the electrode of the reference "correspond to or act in the same manner" as the active metal cores of the instant invention as shown in column 16 of the reference.

Art Unit: 1745

In addition, the applicant states that the art fails to teach a coating of the metal core that is a metal hydroxide or oxyhydroxide that is converted into a corresponding oxide. As the invention is to a product, the intermediate materials of the process of making the product are not part of the claimed invention. The reference anticipates tin oxide, as the product is a metal core coated with an oxide layer. MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1745

***Examiner Correspondence***

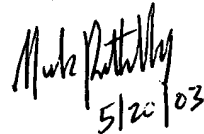
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 703-305-0587. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:00.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 703-308-2383.

The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Mark Ruthkosky

Patent Examiner

Art Unit 1745

  
5/20/03